

## Relationship Transitions and Maternal Parenting

Center for Research on Child Wellbeing  
Working Paper #2008-12-FF

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January 26, 2009

The Fragile Families and Child Wellbeing Study is funded by: the National Institute of Child Health and Human Development (NICHD), the California Healthcare Foundation, the Center for Research on Religion and Urban Civil Society at the University of Pennsylvania, the Commonwealth Fund, the Ford Foundation, the Foundation for Child Development, the Fund for New Jersey, the William T. Grant Foundation, the Healthcare Foundation of New Jersey, the William and Flora Hewlett Foundation, the Hogg Foundation, the Christina A. Johnson Endeavor Foundation, the Kronkosky Charitable Foundation, the Leon Lowenstein Foundation, the John D. and Catherine T. MacArthur Foundation, the A.L. Mailman Family Foundation, the Charles S. Mott Foundation, the National Science Foundation, the David and Lucile Packard Foundation, the Public Policy Institute of California, the Robert Wood Johnson Foundation, the St. David's Hospital Foundation, the St. Vincent Hospital and Health Services, and the U.S. Department of Health and Human Services (ASPE and ACF). The authors would like to thank the Fragile Families Working Group for their valuable advice on this study. Address all correspondence to the first author at The Center for Research on Child Wellbeing, Princeton University, 286 Wallace Hall, Princeton, NJ 08544, [abeck@princeton.edu](mailto:abeck@princeton.edu).

## ABSTRACT

We use data from the Fragile Families Study (N=1975) to examine the relationship between mothers' partnership changes and parenting behavior during the first five years of their child's life. We compare co-residential and dating transitions and recent and more distal transitions. We also examine interactions between transitions and race/ethnicity, maternal education and family structure at birth. Findings indicate that both co-residential and dating transitions are associated with higher levels of maternal stress and harsh parenting, with recent transitions having stronger associations than distal transitions. Maternal education significantly moderates these associations, disadvantaging children of less educated mothers in terms of maternal stress, and children of more educated mothers in terms of literacy activities.

Keywords: parenting, family instability, family structure, Fragile Families, nonmarital births.

Changes in family formation during the past few decades have converged to generate high levels of partnership instability. The prevalence of both non-marital childbearing and cohabitation has increased, and the divorce rate has leveled off at a high level (McLanahan 2004). These changes have exposed an increasing proportion of children to the instability that arises when a mother ends her relationship with the child's biological father and begins her search for a new partner.

Theory suggests that partnership transitions should be considered not as discrete events but rather as cumulative stressors, with prior instability shaping the context of adaptation for new relationships (Rogers and Conrad, 1986). This argument is consistent with theory and research on stressful life events (Holmes and Rahe, 1967) and cumulative risk (Sameroff, Seifer, Baldwin & Baldwin, 1993). To date, however, most research on partnership instability has focused on discrete events such as divorce and remarriage rather than multiple transitions. Furthermore, the few studies that examine multiple transitions have primarily focused on child and adolescent outcomes (Cavanagh & Huston, 2006; Cavanagh & Huston, 2008; Fomby & Cherlin, 2007; Osborne & McLanahan, 2007; Wu & Martinson, 1993; Wu & Thompson, 2001). We build upon this literature by focusing on the association between multiple partnership transitions and a broad range of mothers' parenting behaviors during early childhood. Early mothering is strongly associated with children's emotional, social and cognitive well-being (Brooks-Gunn & Markman, 2005; Collins et al., 2000). Thus, understanding the ways in which partnership instability shapes mothers' care-taking behavior and children's home learning environments can add clarity to our models of family dynamics and enhance the efficacy of family oriented policies and interventions.

This paper addresses three research questions: 1) Are multiple partnership changes during early childhood associated with maternal parenting quality? 2) Do the type and proximity of partnership transitions matter? And 3) are the associations between transitions and parenting quality moderated by

social status and resources such as race/ethnicity, maternal education and mothers' union status at birth? We extend previous research by documenting the prevalence of instability spanning the first five years of a child's life, focusing on a broad set of parenting measures (including maternal stress, literacy activities, and discipline practices), comparing different types of instability (residential versus nonresidential), and examining the timing of mother's exposure to instability – proximate versus distal. We also test for interactions between partnership instability and mothers' race, education, and union status at birth. We utilize data from the *Fragile Families and Child Wellbeing Study* which follows a sample of children from birth to age five. These data contain a large oversample of non-marital births and are ideal for examining partnership changes and parenting during early childhood.

### *Partnership Transitions and Parenting*

Partnership transitions, such as marriage, divorce and remarriage, are viewed as stressful life events for the adults involved as well as the children who live with and are cared for by these adults (Holmes and Rahe, 1967). Stress, in turn, is thought to “spillover” into the parent-child relationship, altering the quality, quantity, and consistency of mothers' parenting (Engfer, 1988). Partnership changes are expected to alter mother's emotional resources, making it harder for her to respond to the needs of her child (Hetherington, 1989; Meadows, McLanahan & Brooks-Gunn, 2008; Ryan, Tolani & Brooks-Gunn, in press). Similarly, dating is expected to reduce the time mothers spend with their child, although to our knowledge no research directly tests this thesis (Gibson-Davis, 2008). Finally, partnership changes are expected to disrupt family rules and routines, increasing uncertainty in parenting (Hetherington, 1989).

In addition to the direct effects described above, partnership changes may also set off a series of secondary changes leading to what Pearlin and colleagues (1981) describe as the *stress process model*.

For example, research finds that divorce, remarriage, and, more recently, cohabitation exits are associated with changes in economic resources (Avellar & Smock, 2005; Holden & Smock, 1991) and residential moves which can break neighborhood ties and reduce social support from local friends (McLanahan & Sandefur, 1994). Whereas previous research indicates that family routines return to baseline levels after a period of time, recovery can only occur in the absence of additional changes, including subsequent partnership transitions (Hetherington, 1989). Drawing on theory and prior research, we hypothesize that:

*(1) Multiple partnership changes are negatively associated with the quality of mothers' parenting.*

#### *Type and Proximity of Instability*

Whereas all partnership transitions are likely to be stressful experiences for a mother, co-residential transitions are expected to be substantially more difficult than dating transitions. To begin with, mothers are expected to experience greater emotional upheaval during co-residential transitions due to the higher level of commitment typically associated with living together. Further, co-residential transitions are more likely to involve a change in daily routine, an income change or a residential move. Although research suggests that dating transitions contribute to a family's overall experience of instability (Osborne and McLanahan, 2007), only one study to date has compared these two types of transitions (Cooper, Osborne, Beck & McLanahan, 2008). We improve on previous research by including dating transitions as part of the overall experience of family instability and by comparing the strength of the associations between types of transitions and mother's parenting behaviors. We hypothesize that:

*(2) Transitions in co-residential unions (marriage and cohabitation) are more negatively associated with poor mothering quality than transitions in non co-residential unions.*

We also examine the importance of proximity for understanding the association between family instability and parenting. Family stress theory (McCubbin & Patterson, 1983) implies that more proximate stressors are likely to be more salient than distal stressors. Indeed, Hetherington (1989) argues that families return to baseline after a divorce in the absence of additional stressors. Taking into account multiple rather than discrete transitions, we hypothesize that:

*(3) Recent instability will be more strongly associated with poor mothering quality than more distal instability.*

*Moderating Effects: maternal education, race/ethnicity and family structure at birth.*

Understanding the association between family instability and maternal parenting requires an examination of the context in which instability occurs. In this study, we examine three factors that have been shown to moderate the association between instability and outcomes: mothers' race, education, and marital status at birth. Although Black children are more likely to be exposed to family instability than White children (Osborne & McLanahan, 2007), at least two studies have found that the association between instability and child well-being is stronger for Whites than for Blacks (Fomby & Cherlin, 2007; Wu & Thompson, 2001). Moreover, recent research suggests that Hispanic adolescents may be more susceptible to the negative effects of a divorce than White or Black adolescents (Sun and Li, 2007). Recent research also suggests that mothers with higher levels of education are less likely to experience parenting stress following a partnership change than mothers with lower levels of education (Cooper, McLanahan, Meadows, and Brooks-Gunn, 2007). If more educated mothers respond better to union transitions than less educated mothers, then maternal education may buffer the effects of instability on parenting practices as well. Finally, not only do households formed by unmarried mothers experience

the most instability in the years following a child's birth (Cavanagh & Huston, 2006), unmarried mothers may be less equipped to deal with instability relative to married mothers because of less access to social, material and emotional resources. Based on these findings, we hypothesize that:

*(4) The association between family instability and parenting is more negative for Whites than for Blacks and Hispanics.*

*(5) The association between family instability and parenting is less negative for children of mothers with at least some college education as compared to mothers with only a high school degree (or less), and*

*(6) The association between family instability and parenting is more negative for mothers who have children outside marriage as compared with married mothers.*

#### *Selection Bias and Controls.*

Thus far we have presented arguments for why family instability would have a causal effect on mothers' parenting. An alternative explanation is that mothers who experience high levels of partnership instability may have other characteristics that cause both the union instability *and* the difficulties with parenting. Recent research suggests that selection may explain a part of the association between family instability and child wellbeing (Fomby & Cherlin, 2007), although no research has focused on parenting. To deal with the problem of omitted variable bias we control for a host of pre-birth characteristics of the mother and characteristics of the child that are expected to be associated with both partnership instability and maternal parenting, including mothers' race/ethnicity, socioeconomic status, and pre-natal health and health behaviors (e.g. smoking, drinking, and mental health problems) which are known to be associated with partnership instability and parenting quality (Carlson, McLanahan, & England, 2004; McLoyd, 1990). We also control for mothers' exposure to family instability growing up which is known to be correlated with family formation. Finally, we control for host of other characteristics less commonly available in other data sources, including mothers' fertility intentionality, pre-birth partnership instability, and cognitive ability all of which may affect the ability to maintain a stable

relationship and engage in positive parenting. We also control for whether the child is male and/or low birth weight, both of which have been shown to be associated with partnership instability and difficult parenting (Reichman, Corman, & Noonan, 2004; Straus & Stewart, 1999).

## METHOD

*Data.* We use data from the Fragile Families and Child Wellbeing Study (FFCWS) which uses a longitudinal birth-cohort design (see Reichman et al. 2001 for detailed sampling information). The FFCWS follows children born between 1998 and 2000 (N=4, 898), of which approximately 75% were born to unmarried women (by design); data was collected from both mothers and fathers at birth, and at one, three and five years following birth. Additionally, we utilize a special In-Home module added during the three and five year data collections designed to assess the physical environment and parenting through direct observation. Approximately 72 % of mothers in the core survey also took part in the In-Home survey, with approximately 69 % of mothers in the latter group completed both the survey and observational component.

The analytic sample for this paper is limited to respondents who participated in the observational component of the In-Home survey in Wave 4 (N=2,061). We followed this strategy so that we could compare results based on self-reported mothering with results based on observational data. We also estimated models using the larger sample and mothers' self-reported parenting, and these models yielded similar results to those presented here with the smaller sample. Finally, we excluded a small number of mothers who had lived apart from their child (N=65), and mothers with missing information on one of the dependent variables, yielding sample of N=1975 mothers. Multiple imputation was used to supplement missing information on the predictor variables but not the dependent variables. Allowing for some missingness (no more than half of any scale) on the dependent variables to be imputed did not

substantially alter our findings. Appendix 1 summarizes baseline characteristics for mothers that were selected for our analytical sample, as well as the characteristics of mothers who were excluded due to attrition, not completing the in-home interview or the observational component, missing data or not living with the child consistently. While there are differences across samples, our analytic sample does not appear to be systematically more or less advantaged than the original sample.

[Table 1 about here]

### *Measures*

*Literacy time investments* is measured as mean number of days per week mothers report engaging in literacy promoting behaviors including: reading stories, telling stories and singing songs (M=4.5,  $\alpha = .67$ ).

*Harsh discipline* is based on mothers' reports of how often they engage in various forms of discipline in the preceding year. The items for this measure are taken from the Conflict Tactics Scale (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Five items tap into psychologically harsh parenting, including: shouting/ yelling/ screaming at the child, cursing/ swearing at the child, calling the child a name, threatening to spank, or threatening to kick the child out of the home. Five additional questions measure different types of corporal punishment such as shaking, hitting, spanking, slapping and pinching the child.

*Parenting Stress* is based on mothers' agreement (0 = *strongly disagree* to 3 = *strongly agree*) with the following four statements: "Being a parent is harder than I thought it would be," "I feel trapped by my responsibilities as a parent," "I find that taking care of my child(ren) is much more work than

pleasure,” and “I often feel tired, worn out, or exhausted from raising a family.” The sum of the four items served as the final scale ( $M=4.7$ ,  $\alpha = .65$ ).

*Observed Parenting: Harshness and Literacy Investments.* As a robustness check, we constructed measures of mothers’ behavior using interviewer reports about what they observed in the home. These assessments are used to create two conceptually driven subscales capturing nonpunitive punishment, and high language literacy (Bradley and Caldwell, 1977). The nonpunitive subscale includes the following items: mother does not shout, express annoyance, spank, scold or criticize ( $\alpha=.72$ ). Given the rarity of more than one of these behaviors occurring during the interview, we have dichotomized the outcome to indicate that any harsh behavior was observed (21.1 %). The language/literacy subscale includes items such as the types of toys the child has in the house, and the number of books in the house. Items were first dichotomized in the following ways: mothers were given a value of 1 if 3 or more toys with 8 different development encouraging properties were observed during the visit. These dichotomized items were summed to create a total scale ( $M=5.7$ ,  $\alpha=.83$ ).

*Partnership transitions.* At each wave, mothers were asked whether they were involved in a romantic relationship, whether they were living with the partner (married or cohabiting), and whether, if applicable, the current partner was the same partner identified in the previous wave. From these pieces of information, we generated counts of both dating and co-residential transitions between Waves 1 and 3. Following Osborne and McLanahan (2007), we also used an indirect way to ascertain additional dating relationships between Wave 1 and 3. Mothers who reported a pregnancy between two interviews were coded as having entered and exited a dating relationship if they reported not having a partner at either time point. At Wave 4 mothers were asked directly how many romantic relationships lasting at least one month they had since the last interview and whether they lived with any of these partners.

From these responses and current status information, we determined counts of dating and co-residential transitions between Waves 3 and 4. Because mothers were not directly asked about the number of romantic relationships at earlier waves, we are likely undercounting transitions between Waves 1 and 3. Note also that our measure of co-residential transitions does not examine whether mothers are changing places of residence, only whether they are transitioning into or out of a marriage or cohabitation. Finally, we measure the total number of transitions between Waves 1 and 4 by summing the counts of co-residential and dating transitions. For all types of transitions, squared terms were also used to test for nonlinearity, but these squared terms were never significant and thus were excluded in our final models.

*Proximity.* To examine the importance of transition proximity, we distinguish between co-residential transitions that occurred between Waves 1 and 3 (birth and age three) and those that occurred between Waves 3 and 4 (ages 3 and 5). We choose to focus on co-residential changes because we believe our indirect method of computing transitions between Waves 1 and 3 is more accurate for co-residential transitions. Mothers report, on average, a large number of dating partners between Waves 3 and 4, whereas our approximation method yields a substantially lower average (and smaller range). In contrast, our measures of early and recent co-residential are much more similar.

*Controls.* All models control for the following demographic characteristics: maternal age in years at baseline, age in years at birth of first child, race/ethnicity (dummy variables for Black, Hispanic, White, and Other), immigrant status (1 = *not born in United States*), education (dummy variables for less than high school, high school, some college, college), parity (1 = *first born*), self-rated health at Wave 1 (1 = *great* to 5 = *poor*), child gender (1 = *male*), and child low birth weight (1 = *below 2500 grams*). Following the work of Fomby and Cherlin (2007), all models also control for Wave 1 and Wave 4 marital status, measured as “not married to the biological father” (1 = *not married*, 0 =

*married*). Tests suggested that there were no significant differences among those not married to the biological father (i.e. married to social father, cohabiting with social father, cohabiting with biological father, single), thus the groups were collapsed. Mothers' intelligence was measured using the Wechsler Adult Intelligence Scale-Revised (Wechsler, 1981) similarities subtest score. Prior instability is the number of romantic relationships ending with the biological father. We also measured whether mothers lived with both parents at age 15, considered an abortion during her pregnancy with the focal child, smoked at least part of a pack each day while pregnant, and used alcohol at least several times a month while pregnant.

*Analyses.* Our first models include the total number of transitions (Model 1a and 1b). In models 2a and 2b, we distinguish between co-residential and dating transitions. Model 3a and 3b distinguish between distal (first three years of child's life) and recent co-residential transitions. Models with the subscript *a* include a standard set of demographic controls; while those noted *b* include additional controls to further ameliorate selection bias. Interactions between total transitions and maternal education, race/ethnicity, and family structure at baseline and are introduced in Models 4, 5, and 6 respectively. Standard OLS models are used for the maternal stress, literacy time investments, and harsh parenting subscales.

We also conducted a series of robustness checks for measurement error and selection which are discussed in more detail below. The first check compares self-reported literacy and harsh punishment with observed literacy and harsh parenting. Additionally, we attempted to mitigate selection bias by including a rich set of controls that we expected to be related both to parenting practices and instability. In the final check, we examined whether there was evidence that parenting at age 3 was predicted by

transitions between age 3 and 5. While none of these solutions is perfect, taken in combination, they suggest the robustness of our estimates to various sources of bias.

## RESULTS

Before turning to the regression results, we briefly describe the prevalence of instability in our sample. In previous work, Osborne and McLanahan (2007) found substantially more instability in the first three years following birth among mothers who gave birth outside of a marital union as compared with mothers who gave birth within marriage. We found that this pattern continued between ages three and five, with unmarried mothers (at birth) showing much higher instability. Among mothers who were married at the child's birth, 23.6% experienced one or more changes and 13.1% experienced three or more changes. In contrast, among mothers who were unmarried at birth, 83% experienced at least one relationship change in the first five years of their child's life, with approximately 50% experiencing three or more transitions during this time period. Nearly all (98%) of the unmarried mothers who did not experience a change during the five year period were living with the biological fathers of their child at birth and remained in cohabiting relationships (or transitioned into marriage with the biological father of their child). Only two percent of unmarried mothers who were single at birth experienced no relationship changes, suggesting that researchers should reconsider the definition of stably single.

These disparities in instability were also present in both the pattern of co-residential transitions and dating transitions. For mothers who were married at baseline: 20.8% experienced one or two coresidential changes, while less than 2% experienced three or more total transitions. The proportions were similar for dating transitions, highlighting a common instability pattern for this group: divorce followed by a small number of dating transitions. For mothers who were unmarried at birth, approximately 50% experienced one or two co-residential changes, and 10% experienced 3 or more. On

average, unmarried mothers experienced more dating transitions, 33% of unmarried mothers experienced one or two whereas 24% experienced three or more dating transitions.

The first aim of this paper was to examine whether partnership transitions during a child's first five years were negatively associated with parenting quality at age 5. Table 2 presents the results of OLS models predicting maternal parenting stress, harsh parenting practices and literacy promoting behaviors.

[Table 2 about here]

We first focus on Model 1a and 1b which introduced a measure of total partnership instability from birth to age 5. In Model 1a, we found that each additional partnership transition was associated with a higher level of self-reported maternal stress (0.204,  $p < .001$ ). The estimate was slightly reduced (0.183,  $p < .001$ ) once more extensive controls were introduced (Model 1b). Instability was also associated with a higher frequency of harsh parenting (0.133,  $p < .01$ ); this association remained after the introduction of more extensive controls (0.107,  $p < .05$ ). We did not find a significant association between instability and literacy behaviors, though the estimate was in the expected negative direction.

Our second aim was to investigate whether the type or proximity of instability was associated with maternal parenting. We expected co-residential transitions to be more negative than dating transitions and we expected recent transitions to be more negative than distal transitions. Turning first to the type of transitions, Models 2a and 2b included separate measures of the total number of co-residential and dating transitions. In Model 2a, we found that both co-residential partnership changes and dating partnership changes were associated with increases in reported maternal stress, (0.176,  $p < .01$ ) and (0.213,  $p < .001$ ) respectively, with dating changes showing a stronger association. However, a Wald test indicated that the difference between the two estimates was not significant. This

pattern remained, though again, the point estimates were slightly reduced after introducing the more extensive set of controls (Model 2b). Co-residential and dating instability were also associated with a higher frequency of self-reported harsh parenting, (0.244,  $p < 0.01$ ) and (0.099,  $p < 0.10$ ) respectively, with co-residential changes showing a significantly stronger effect. While the estimate for dating transitions lost statistical significance once more extensive controls were introduced, it remained in the expected direction. Additionally in Model 2b, the difference between the two coefficients became non-significant. We found no significant association with either dating, or co-residential transitions and literacy behaviors.

To examine the influence of the proximity, Models 3a and 3b introduced measures of distal co-residential transitions measured from birth to age 3 and recent co-residential transitions measured from age 3 to age 5. Distal co-residential transitions had a negative and non-significant association with parenting stress, whereas recent transitions were significantly associated with maternal stress (0.275,  $p < 0.05$ ); this pattern held after introducing additional controls (Model 3b). Recent co-residential transitions also significantly increased the reported frequency of harsh parenting (0.302,  $p < 0.05$ ); though not significant, early residential changes also ran in the expected positive direction. For both maternal stress and harsh parenting, Wald tests indicated that the estimates for distal and recent co-residential transitions were significantly different. Recent co-residential transitions were also negatively associated with literacy promoting behaviors, though these associations did not reach statistical significance. Contrary to our expectations, early co-residential transitions were significantly associated with modest increases in literacy behaviors. Separate analyses (not shown) suggested that this association was particularly positive among Black mothers undergoing co-residential changes early in the child's life and for items such as telling stories.

In summary, we found that total transitions negatively impacted maternal stress and harsh parenting, but not literacy behaviors. While co-residential and dating were independently associated with both maternal stress and harsh parenting, statistical tests indicated that we could not reject the possibility that the associations were equivalent. Finally, we found that recent, but not distal, co-residential transitions were associated with increases in maternal stress and harsh parenting. In contrast, early residential transitions were associated small increases in the reported frequency of literacy promoting behaviors.

### *Control Variables*

The controls included in our final models (not shown here) largely run in the expected direction. To provide a basis of comparison, the associations of family structure at birth, education, race/ethnicity and immigrant status were generally twice (or more) as large as the estimated effects of experiencing one transition. Instability tended to be similar in magnitude to child's characteristics such as first born and gender.

### *Interaction Results*

Our third aim was to determine whether the associations between partnership transitions and parenting quality varied by resources such as maternal education and family structure at birth, and by social status measured by race/ethnicity. We hypothesized that the negative associations between instability and high quality parenting would be weaker for mothers who were White, college educated and married at birth.

[Table 3 about here]

In terms of maternal stress, the associations between partnership transitions and mothering were most negative for mothers with a high school degree or less as compared with mothers in other education groups. In contrast, our results for literacy activities showed that partnership transitions had the strongest associations for mothers at the high end of the educational distribution. Indeed with additional partnership transitions, more educated mothers quickly lost the large literacy advantage they hold over less educated mothers. We found no significant interactions for harsh parenting.

[Figures 1 and 2 about here]

These interactions effects are shown in Figure 1 for parenting stress and Figure 2 for literacy activities. As shown, mothers with less than a high school degree, when stable, reported the highest levels of maternal stress and each transition further increased stress by 0.143 (0.274-0.128). While high school graduates reported the lowest levels of maternal stress at zero transitions, they also reported the greatest increases in stress with additional transitions (0.274,  $p < .001$ ), indicating a convergence of the least educated groups at higher counts of transitions. Figure 1 also shows that both high school graduates and mothers with some college very quickly surpass the level of stress reported by a college graduate mother with two transitions (65 % and 57% of high school graduates and some college mothers experienced at least two, respectively). All partnership transitions decreased total literacy among mothers with some college experience and college degrees, but exerted no change in literacy behaviors among less educated mothers. As shown in Figure 2, with only one transition college educated mothers slip below the level of mothers with some college and with two transitions, their literacy activity levels are similar to those of mothers with only a high school degree (24 % of college educated mothers experience at least one transition and 20 percent experience two or more transitions).

### *Robustness Checks*

We carried out a number of robustness checks for both our measures and our models. With respect to our measures, we replicated the literacy and harsh parenting models discussed in the previous section, substituting the observed measures of home literacy investments and harsh parenting for the self-reported measures. Observed measures are not only thought to be more objective than mother-reported measures, but using interviewer reports may alleviate concerns of single-reporter bias. Our observed literacy measure showed substantial concordance with the self-reported measure of literacy behaviors. In a few cases, the coefficients were not significant, but the signs were always the same. The similarity of the results was particularly striking given that self-reported time investments and observed literacy-promoting goods represent two separate, though related, dimensions of literacy promotion. For observed harsh parenting, the instability estimates were similar in sign, but none were statistically significant. The observed harsh parenting should be interpreted with some caution, however. Differences in the self-reported versus observed harsh parenting measures may in fact be a reflection of a power problem with the observed measure (a dichotomous rather than a continuous measure), or a social desirability bias, with mothers avoiding harsh parenting practices in front of the interviewer, rather than reflecting a lack of support for our self-reported harsh parenting measures.

With respect to our models, we conducted two additional tests. First, we examined alternative ways of specifying mothers' family structure. While our choice to include controls for family structure at both birth and year 5 was modeled after previous research (Fomby and Cherlin, 2007), we also examined whether our transition estimates were sensitive to the exclusion of either baseline or year 5 family structure controls. Dropping the control for whether mother was married to the biological father at baseline produced estimates similar to those presented in Table 3. However, dropping the control for marriage to biological father at year 5 resulted in slightly reduced estimates. This finding suggests that not accounting for the benefit associated with a transition into marriage with the biological father leads

to an underestimate of the negative impact of instability overall. Second, to test for whether a third unobserved variable was causing both partnership transitions as well as mothers' parenting behavior, we conducted analyses in which transitions between waves 3 and 4 were regressed on parenting variables measured at wave 3, controlling for instability between birth and year 3. If future transitions were associated with current parenting, this would be consistent with a third variable argument. Only in the case of maternal stress was instability between years 3 and 5 a significant predictor of parenting at year 3. Note that these results could also occur if mothers' stress was due to her anticipation of a partnership change. Our data do not allow us to adjudicate between these two explanations.

## DISCUSSION

To understand the association between partnership instability and early parenting behaviors this paper investigated six hypotheses. First, we expected that multiple partnership transitions would be negatively associated with the quality of mothers' parenting. We also expected that co-residential transitions would have a stronger negative impact on parenting than dating transitions, and that proximate changes would prove more detrimental to mothers' parenting than distal changes. Finally, we hypothesized that the association between instability and parenting would be more negative for Whites, relative to Blacks and Hispanics, more negative for unmarried-at-birth mothers, and less negative for mothers with more education.

Turning to our first hypothesis, we found that the impact of total partnership instability was in the expected negative direction, increasing maternal stress and harsh parenting, and decreasing literacy promoting behaviors. The association reached statistical significance for both maternal stress and harsh parenting and the consistent pattern across outcomes suggests that instability is associated with a broad range of mothers' parenting behaviors. We also found that results using interviewer-reporting HOME

outcomes mirrored the harsh parenting and literacy findings in terms of direction, though neither association was statistically significant.

We expected that co-residential transitions would have a more negative impact on mothers' parenting relative to dating transitions. For both maternal stress and harsh parenting, we found that both types of transitions had a negative and significant impact, with estimates appearing larger in magnitude for co-residential transitions only in the case of harsh parenting. However, statistical tests indicated that we could not reject the equivalence of these estimates. Our findings in this respect suggest that dating transitions represent an important dimension of partnership instability for mothers' parenting and that future work should continue to document and examine the nature and impact of dating in the lives of women with children.

Turning to our third hypothesis, we found that, in line with our expectations, recent partnership changes had a larger impact on both maternal stress and harsh parenting than more distal changes. However, contrary to our expectations, we found that early residential changes were associated with increases in literacy promoting behaviors. Supplementary investigations (not reported here) suggested that this finding was limited to Black mothers, with no one sequence of transitions driving the results.

In regards to moderation, we found support for our expectation that higher education would alleviate the negative impact of instability on maternal stress, with more educated mothers being less affected or not affected at all by partnership transitions. We did not find this pattern to be true for harsh parenting. Moreover, in contrast to our expectations, we found that the negative association between transitions and literacy activities was more negative among educated mothers. The latter finding is probably due to the fact that college educated mothers spend much more time than other mothers on literacy promoting activities, and thus time distractions have a more noticeable effect on this group. We

did not find that race or ethnicity or family structure at birth significantly altered the association between instability and parenting.

### *Limitations*

Our data contain no direct measure of the number of co-residential and dating relationships that occur between waves before the child is age 3 and thus we are likely to underestimate these transitions, especially dating transitions. Our data also preclude us from capturing cohabitations or dating relationships that last less than a month. While short-term dating and cohabitating relationships are likely to entail some degree of maternal stress, we expect that these shorter term relationships may be less disruptive to parenting behaviors and family organization than longer term relationships. Future study, with alternative data, could examine the ways in which the more tenuous, short-term dimensions of the mate search process may impact a mother's time, energy and ability to parent. Finally, a limitation inherent in virtually all data measuring cohabitation is the substantial heterogeneity in mothers' definitions of what constitutes cohabiting. The fuzzy line between cohabiting and dating may be an additional explanation for the lack of statistically significant difference we find between co-residential and dating transitions.

In our review of the literature, we highlighted the potential for further disadvantage stemming from residential moves and resource changes that accompany partnership transitions. Unfortunately, our data does not allow for a precise match between a transition and one of these changes so we cannot examine them as mediating processes. Further, due to the data structure, partnership transitions can only be linked to parenting outcomes at each wave, so we are limited with respect to linking the timing of an entrance or exit to parenting behaviors. In addition, the literacy outcome suffers from measuring a rather limited dimension of literacy promotion. As a count of the number of days a week a mother engages in

a given activity, we lack more nuanced information on the time per day, or quality of literacy instruction that may be occurring.

Finally, in a limitation inherent to non-experimental data, we cannot ascertain with certainty that the associations shown here are causal in nature. While our attempts to address this issue are not fully satisfactory, we move closer towards a causal story with a rich set of controls and a series of robustness checks. All of our outcomes were robust to the inclusion of an extensive set of controls, and in the case of literacy and harsh parenting a sensitivity test for omitted variable bias.

### *Summing up*

Changes in family formation during the past few decades have dramatically increased children's exposure to changes in mothers' union formation and dissolution, with low income and minority children experiencing the greatest risk of exposure. This paper is the first to directly examine the implications of these changes for the quality of mothers' parenting during a specific time frame (birth to age five) and across a variety of parenting domains. The findings indicate that partnership changes influence maternal investments; each partnership change, including changes in dating relationships as well as changes in co-residential unions, is associated with a decrease in the quality of mothers' parenting. Further, the 'effects' of instability on parenting depend on mothers' education, with more educated mothers experiencing greater declines in literacy activities (relative to their peers) and less educated mothers reporting greater increases in stress (relative to their peers). While earlier studies have shown that mothers can adjust to a single partnership change after a period of time, our research highlights the fact that for many mothers partnership instability and uncertainty are a way of life that undermines their ability to care for their children.

## REFERENCES

- Avellar, S., & Smock, P. (2005). The economic consequences of the dissolution of cohabiting unions. *Journal of Marriage and Family, 67*, 315 – 327.
- Bradley, R., & Caldwell, B. (1977). Home observation for measurement of the environment: A validation study of screening efficiency. *American Journal of Mental Deficiency, 81*, 417 – 420.
- Brooks-Gunn, J. & Markman, L. B. (2005). The contribution of parenting to ethnic and racial gaps in school readiness. *Future of Children, 15*, 139-168.
- Carlson, M., McLanahan, S., & England, P. (2004). Union formation in Fragile Families. *Demography, 41*, 237-261.
- Cavanagh, S. & Huston, A. (2008). The timing of family instability and children's social development. *Journal of Marriage and Family, 5*, 1258-1270.
- Cavanagh, S. & Huston, A. (2006). Family instability and children's early problem behavior. *Social Forces, 85*, 551-581.
- Cooper C., McLanahan, S., Meadows, S., & Brooks-Gunn, J. (2007). *Family structure transitions and maternal parenting stress* (Working Paper No. 2007-16-FF). Princeton, NJ: Princeton University. Center for Research on Child Wellbeing.
- Cooper C., Osborne C., Beck A., & McLanahan S. (2008). *Partnership instability and child wellbeing during the transition to elementary school* (Working Paper No. 2008-08-FF). Princeton, NJ: Princeton University. Center for Research on Child Wellbeing.
- Engfer, A. (1988). The interrelatedness of marriage and the mother-child relationship. In R. A. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within families: Mutual influences* (pp. 105-118). Oxford, UK: Clarendon.
- Fomby, P. & Cherlin, A. J. (2007). Family instability and child well-being. *American Sociological*

*Review*, 72, 181-204.

Gibson-Davis, C. M. (2008). Family structure effects on maternal and paternal parenting in low-income families. *Journal of Marriage and Family*, 70, 452-465.

Hetherington, E. M. (1989). Coping with family transitions: Winners, losers, and survivors. *Child Development*, 60, 1-14.

Holden, K. C., & Smock, P. J. (1991). The economic costs of marital dissolution: Why do women bear a disproportionate cost? *Annual Review of Sociology*, 17, 51-78.

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, 11, 213-318.

McCubbin, H., & Patterson, J. (1983). The family stress process: The double ABCX model of adjustment and adaptation. In H. McCubbin, M. Sussman, & J. Patterson (Eds.), *Social stress and the family: Advances and developments in family stress theory and research* (pp. 7-37). New York: Haworth Press.

McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography*, 41, 607-627.

McLanahan, S., & Sandefur, G. (1994). *Growing up with a single parent: What hurts, what helps*. Harvard University Press.

McLoyd V. C. (1990). The impact of economic hardship Black families and children: Psychological distress, parenting and socioemotional development. *Child Development*, 61, 311 – 346.

Meadows, S. O., McLanahan, S., & Brooks-Gunn, J. (2008). Family structure changes and maternal health trajectories. *American Sociological Review*, 73, 314-334.

Osborne, C., & McLanahan, S. (2007). Partnership instability and child wellbeing. *Journal of Marriage and Family*, 69, 1065-1083.

- Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullen, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337-356.
- Reichman, N. E., Corman H., & Noonan, K. (2004). Effects of child's health on parents' relationship status. *Demography*, 41, 569-584.
- Reichman, N. E., Teitler, J. O., Garfinkel, I., & McLanahan, S. (2001). Fragile families: Sample and design. *Children and Youth Services*, 23, 303-326.
- Rogers, L. H., and Conrad, R. M. (1986). Courtship for remarriage: Influence on family reorganization after divorce. *Journal of Marriage and Family*, 48, 767-775.
- Ryan, R., Tolani, N., & Brooks-Gunn, J. (In Press). Relationship trajectories, parenting stress and unwed mothers' transition to a new baby. *Parenting: Science and Practice*
- Sameroff, A. J., Seifer, R., Baldwin, A., & Baldwin, C. (1993). Stability of intelligence from preschool to adolescence: The influence of social and family risk factors. *Child Development*, 64, 80-97.
- Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. (1998). Identification of child maltreatment with the parent-child conflict tactics scales: development and psychometric data for a national sample of American parents. *Child Abuse and Neglect*, 22, 249-270.
- Straus, M. A., & Stewart, J. A. (1999). Corporal punishment by American parents: National data on prevalence, chronicity, severity, and duration, in relation to child and family characteristics. *Clinical Child and Family Psychology Review*, 2, 55-70.
- Sun, Y., & Li, Y. (2007). Racial and ethnic differences in experiencing parents' marital disruption during late adolescence. *Journal of Marriage and Family*, 69, 742-762.
- Wechsler, D. (1981). *Wechsler Adult Intelligence Scale – Revised (WAIS-R Manual)*. The Psychological Corporation. Harcourt Brace Jovanovich.
- Wu, L., & Martinson, B. (1993). Family structure and the risk of a premarital birth. *American*

*Sociological Review*, 58, 210-232.

Wu, L., & Thomson, E. (2001). Race differences in family experiences and early sexual initiation: Dynamic models of family structure and family change. *Journal of Marriage and the Family*, 63, 682-696.

Appendix 1

*Selected Characteristics of Various Fragile Families Samples*

	Sample 1 <sup>a</sup> (n = 4,898)	Sample 2 <sup>b</sup> (n = 759)	Sample 3 <sup>c</sup> (n = 1,116)	Sample 4 <sup>d</sup> (n = 150)	Sample 5 <sup>e</sup> (n = 260)	Sample 6 <sup>f</sup> (n = 1,975)
Baseline characteristics						
Relationship status						
Married to biological father (%)	24.23	23.06	27.87	5.33	15.38	21.57
Unmarried (%)	75.77	76.94	72.13	94.67	84.62	78.43
Maternal age	25.28	25.77	25.46	25.61	25.07	24.91
Maternal race/ethnicity						
African American (%)	47.62	40.29	42.86	58.39	59.69	54.04
Hispanic (%)	27.34	32.50	30.64	22.15	27.31	24.25
White (%)	21.08	20.74	21.11	16.78	11.69	19.11
Other race/ethnicity (%)	3.97	6.47	5.39	2.68	1.31	2.60
Maternal immigrant status (%)	17.03	28.76	19.77	5.33	15.77	11.36
Maternal education						
Less than High School (%)	34.72	40.97	33.51	58.00	40.62	33.14
High School Degree (%)	30.25	26.48	31.72	28.00	32.15	32.40
Some College Experience (%)	24.30	22.53	22.40	11.33	22.00	24.61
College Degree or Higher (%)	10.73	10.01	12.19	2.67	5.23	9.85
Child gender (% male)	52.44	51.65	53.76	54.67	50.38	51.70
First born (%)	38.28	37.30	38.61	20.27	40.23	38.56
Child low birth weight (%)	10.74	12.25	9.41	26.00	9.23	10.18

*Note:* <sup>a</sup>Original Fragile Families Study sample. <sup>b</sup>Mothers who did not participate in the five-year core survey. <sup>c</sup>Mothers who participated in the five-year core survey but not in the five-year in-home survey. <sup>d</sup>Mothers who lived with focal child half time or less during one or more waves. <sup>e</sup>Mothers missing information on one or more study variables after excluding those who did not meet sample criteria. <sup>f</sup>Analytic sample.

Table 1  
*Descriptive Statistics by Relationship Status at Birth*

	Total N = 1,975		Married n = 426		Unmarried n = 1,549	
	M	SD	M	SD	M	SD
Parenting outcomes						
Maternal Stress	4.72	2.71	4.52	2.57	4.77	2.75
Harsh Parenting	4.06	3.41	3.58	3.10	4.20	3.48
Literacy Promoting Behaviors	4.49	1.75	4.62	1.81	4.46	1.73
Relationship transitions						
All relationship transitions	2.14	1.95	.67	1.34	2.55	1.90
Coresidential transitions only	.93	1.06	.32	.67	1.09	1.08
Non-coresidential transitions only	1.22	1.66	.35	.86	1.46	1.74
Early coresidential transitions	.56	.76	.19	.50	.66	.79
Recent coresidential transitions	.37	.59	.13	.38	.43	.62
Maternal controls						
Less than High School (%)	33.14		13.62		38.52	
High School Degree (%)	32.40		21.59		35.34	
Some College Experience (%)	24.61		29.11		23.38	
College Degree or Higher (%)	9.85		35.68		2.76	
Age at baseline	24.91	5.93	29.51	5.59	23.64	5.37
Black (%)	54.04		29.81		60.70	
Hispanic (%)	24.25		22.77		24.66	
Other (%)	2.60		5.16		1.90	
White (%)	19.11		42.26		12.74	
Immigration status (%)	11.36		19.53		9.12	
Cognitive ability	6.76	2.63	7.90	2.73	6.44	2.51
Parents' mental health (%)	36.26		39.30		35.43	
Self-rated health	2.90	.95	3.05	.88	2.85	.97
Lived with both parents (age 15)	38.95		59.72		33.23	
(%)						
Received prenatal care (%)	98.48		99.06		98.32	
Drank during pregnancy (%)	1.77		1.41		1.87	
Smoked during pregnancy (%)	18.93		9.39		21.55	
Considered an abortion (%)	29.30		12.21		34.00	
Relationship history	2.10	2.32	2.69	2.89	1.94	2.10
Married to bio-father, Wave 4 (%)	28.35		79.81		14.20	
Not married to BF, Wave 4 (%)	71.65		20.19		85.80	
Child controls						
Male (%)	51.70		52.11		51.58	
First born (%)	38.56		34.03		39.81	
Low birth weight (%)	10.18		7.28		10.97	

Note: Source: Fragile Families and Child Wellbeing Study.

Table 2  
*Results of OLS Models Predicting Parenting Outcomes at Age Five (N = 1,975)*

	Maternal Stress	Harsh Parenting	Literacy-Promoting Behaviors
1a. All relationship transitions	.204*** (.041)	.133** (.049)	-.007 (.026)
1b. All relationship transitions	.183*** (.041)	.107* (.049)	-.004 (.026)
2a. Coresidential transitions	.176** (.066)	.244** (.082)	.038 (.043)
Non-coresidential transitions	.213*** (.045)	.099+ (.053)	-.021 (.028)
2b. Coresidential transitions	.134* (.066)	.185* (.082)	.045 (.043)
Non-coresidential transitions	.197*** (.043)	.084 (.052)	-.019 (.028)
3a. Early Coresidential transitions	-.058 (.087)	.096 (.107)	.096+ (.055)
Recent Coresidential transitions	.333** (.110)	.380** (.136)	-.032 (.071)
3b. Early Coresidential transitions	-.079 (.086)	.059 (.106)	.102+ (.055)
Recent Coresidential transitions	.275* (.110)	.302* (.135)	-.026 (.071)

*Note:* Unstandardized  $\beta$  coefficients presented.

a. Includes standard demographic controls and child characteristics, b. Includes additional controls for WAIS score, parents' psychological problems, prenatal health behaviors, previous relationships, considered abortion, and lived with both parents at age 15.

†  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3  
*Results of OLS Models Predicting Parenting Outcomes at Age Five by Relationship Transitions and Interactions with Maternal Education, Race/Ethnicity and Family Structure at Birth (N = 1,975)*

Model	Variable	Maternal Stress	Harsh Parenting	Literacy-Promoting Behaviors
4	All Transitions	.274***	.097	.016
	Less than High School	.760**	-.189	-.131
	Some College Experience	.174	-.157	.390*
	College Grad or Higher	.545+	-.634	.463*
	Less than H. S. x all transitions	-.128+	-.003	.006
	Some College x all transitions	-.166*	.063	-.092+
	College Grad x all transitions	-.357*	-.243	-.199+
5	All Transitions	.177**	.123	-.079
	Black	.016	.794**	-.485**
	Hispanic	-.291	.145	-.372*
	Other	.752	.966	.436
	Black x all transitions	-.010	-.031	.090
	Hispanic x all transitions	.055	.001	.093
	Other x all transitions	-.201	.196	-.145
6	Total transitions	.098	.006	-.050
	Unmarried at Birth	-.335	-.355	.124
	Unmarried at Birth x all transitions	.090	-.107	.049

*Note:* Unstandardized  $\beta$  coefficients presented. All models include the full set of controls.  
<sup>†</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Figure 1. Parenting Stress and Instability, Interactions by Maternal Education

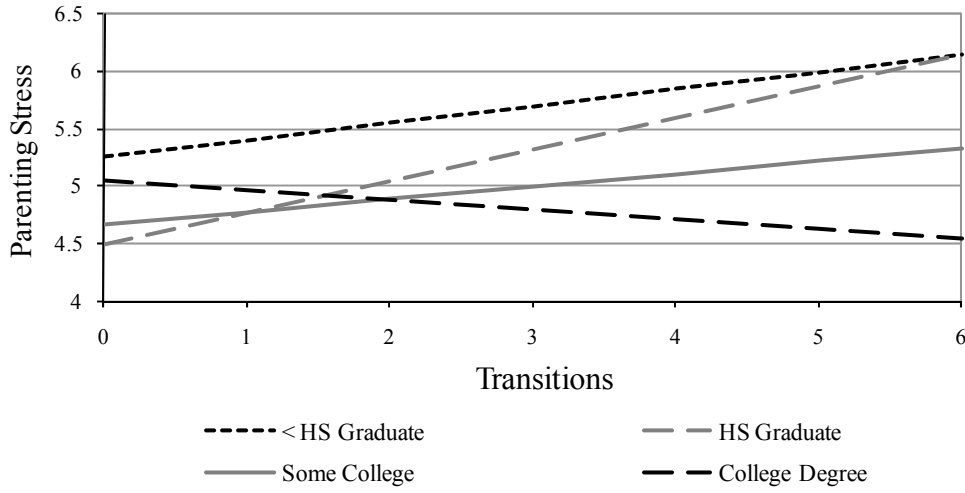


Figure 2. Literacy Activities and Instability, Interactions by Maternal Education

